

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Emmanuel Kossi TANGNI et al.	Art Unit:	Not yet assigned
Application No.: 10/564,525	Examiner:	Not yet assigned
Filed: January 13, 2006	Attorney Dkt. No.:	11016-0056
For: BIOLOGICAL METHOD FOR DETOXICATION OF A LIQUID FOOD MEDIUM		

**SUBMISSION OF TRANSLATION OF INTERNATIONAL
PRELIMINARY REPORT ON PATENTABILITY**

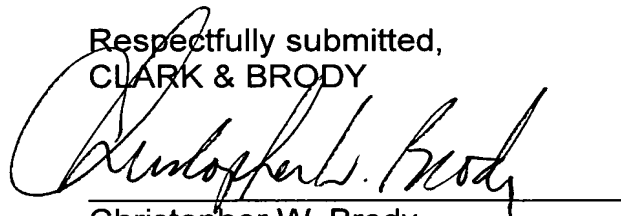
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

For the Examiner's convenience, Applicants respectfully submit herewith a copy of the translation of the International Preliminary Report on Patentability which was issued in the related International Application. The references cited therein have already been disclosed by Applicants in the Information Disclosure Statement filed with the initial application.

Applicants respectfully submit that there is no fee required for this submission, however, please charge any fee deficiency or credit any overpayment to Deposit Account No. 50-1088.

Respectfully submitted,
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Date: June 23, 2006

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference SGahF1708-1	FOR FURTHER ACTION		See Form PCT/IPEA/416
International application No. PCT/FR2004/001863	International filing date (day/month/year) 15.07.2004	Priority date (day/month/year) 16.07.2003	
International Patent Classification (IPC) or national classification and IPC C12H1/04, A23L2/80, A23L3/00			
Applicant REALDYME			

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>8</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>3</u> sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>	
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability: citations and explanations supporting such statement</p> <p><input checked="" type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>	

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language _____ which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-30 _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☒ the claims:
- nos. 22-24 _____ as originally filed/furnished
- nos.* _____ as amended (together with any statement) under Article 19
- nos.* 1-21 _____ received by this Authority on 13.05.2005 with fax
- nos.* _____ received by this Authority on _____
- ☒ the drawings:
- sheets 1/4-4/4 _____ as originally filed/furnished
- sheets* _____ received by this Authority on _____
- sheets* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (specify): _____
- ☐ any table(s) related to sequence listing (specify): _____
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (specify): _____
- ☐ any table(s) related to sequence listing (specify): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	5-12, 14-21	YES
	Claims	1-4, 13	NO
Inventive step (IS)	Claims	18-21	YES
	Claims	1-17	NO
Industrial applicability (IA)	Claims	1-21	YES
	Claims		NO
2. Citations and explanations (Rule 70.7)			
1. Reference is made to the following documents:			
D1: PATENT ABSTRACTS OF JAPAN vol. 0091, no. 30 (C-284), 5 June 1985 (1985-06-05) & JP 60 016933 A (SUNTORY KK), 28 January 1985 (1985-01-28) and D1a: EP-A-0 124 891 (mentioned by the applicant);			
D2: TSUNEO KADA, MASAYUKI KATO1 KATSUHIRO AIKAWA, AND SHUHACHI KIRIYAMA: "Adsorption of pyrolysate mutagens by plant fibres" MUTATION RESEARCH, vol. 141, 1984, pages 149-152, XP002270698;			
D3: US-A-4 770 880 (KADA TSUNEO ET AL) 13 September 1988 (1988-09-13);			
D4: GB 688 815 A (DEGLUTAN BEER PRODUCTS LTD) 11 March 1953 (1953-03-11);			
D5: US 2003/170361 A1 (HU YATAO ET AL) 11 September 2003 (2003-09-11).			

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Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability:
citations and explanations supporting such statement2. Novelty:

2.1 D1/D1a discloses a biological method for decontaminating mycotoxins such as aflatoxins in a liquid food medium such as coffee. A liquid food medium (see D1a, page 9, line 35: "coffee solution") is contacted with insoluble micronised plant fibres (see D1a, page 9, line 19: "wheat germ powder"). Moreover, D1a mentions a filtration step which is carried out after the micronised fibres have been added (see D1a, page 9, line 36: "filtration"), i.e. a fibre-removing step.

2.2 The applicant appears to contest the fact that document D1/D1a discloses an adsorption step. The applicant's argument is based on the fact that said document makes no mention of the phenomenon of adsorption and makes reference, in general, to an "inactivation" step.

However, the applicant has not specified by means of which other phenomena such inactivation could be achieved. Indeed, the step in independent claim 1 in the present application merely involves contacting the food medium with the fibres. Said step appears to cause the adsorption of the mycotoxins onto the fibres. The same phenomenon must take place in D1/D1a because the step is the same, i.e. the food medium is contacted with the fibres. If adsorption cannot be caused by simply

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Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

contacting a food medium with the fibres, it appears that an essential feature is missing from the method claimed.

2.3 The subject matter of claims 1 to 4 and 13 is not novel (PCT Article 33(2)) for the reasons set out above.

3. Inventive step

3.1 The use of micronised fibres that are smaller than 200 μm does not involve an inventive step (see, in particular, the term "powder" in D1 and column 2, lines 21-29 in D3). The subject matter in claims 5 and 6 does not fulfil the requirement of PCT Article 33(3). The same is true of the subject matter in claims 11, 12, 14 and 15.

3.2 D2 describes the decontamination of an aqueous medium (neutral, at room temperature; see table 2) using plant fibres. The treatment can last 1 to 6 hours (see figure 1). The amount of plant fibres added to the aqueous medium is 20 mg/ml, i.e. 2 wt % per litre of medium. It follows that the subject matter of claims 7 to 10 does not fulfil the requirement of PCT Article 33(3).

3.3 No inventive step is involved in including a separate detoxification step in a beer production method (see, in particular, document D4). The subject matter of claims 16 and 17 does not

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Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

involve an inventive step (PCT Article 33(3)).

- 3.4 Since none of the available prior art documents discloses the implementation of a step of contacting the liquid medium with the plant fibres either before the fermented wash filtration step or simultaneously with the brewing step, it cannot be claimed that said available prior art suggests the modification of the method known from document D4 in such a way as to arrive at the subject matter of claims 18 to 21 (PCT Article 33(3)).

4. Industrial applicability

The industrial applicability of the invention is clear from the description (PCT Article 33(4)).

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Box No. VI Certain documents cited

1. Certain published documents (Rule 70.10)

Application No. Patent No.	Publication date (day/month/year)	Filing date (day/month/year)	Priority date (valid claim) (day/month/year)
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See Supplemental Box.

2. Non-written disclosures (Rule 70.9)

Kind of non-written disclosure	Date of non-written disclosure (day/month/year)	Date of written disclosure referring to non-written disclosure (day/month/year)
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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of:

Box VI

1. Document D5, which was published after the priority date of the present application but before its international filing date, discloses a method for decontaminating beverages. The hydrogel, which is used as an adsorbent, is micronised to 10 to 40 μm . Said document mentions that it could be prejudicial to filtration to use hydrogel particles that are too small (see paragraph [0019]).